

PATENT COOPERATION TREATY

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REC'D 24 MAR 2006



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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference LU6155	FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/EP2004/014609	International filing date (day/month/year) 22.12.2004	Priority date (day/month/year) 23.12.2003	
International Patent Classification (IPC) or national classification and IPC C08F10/00, C08F4/60, C08F4/70			
Applicant BASELL POLYOLEFINE GMBH et al.			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau) a total of 2 sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 10.08.2005		Date of completion of this report 22.03.2006	
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer Fischer, B Telephone No. +31 70 340-3769 	

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/014609

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-32 as originally filed

Claims, Numbers

1-9 received on 10.08.2005 with letter of 10.08.2005

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/014609

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-7,9
	No: Claims	8
Inventive step (IS)	Yes: Claims	3,4,6,7
	No: Claims	1,2,5,8,9
Industrial applicability (IA)	Yes: Claims	1-9
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Reference is made to the following documents:

- D1: US-A-5 895 771 (EPSTEIN ET AL) 20 April 1999 (1999-04-20)
D2: US-B1-6 583 238 (GOERES MARKUS ET AL) 24 June 2003 (2003-06-24)
D3: Chem. Eur. J. 2001,7, pages 490-502(cited in the application)

1. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 8 is not new in the sense of Article 33(2) PCT.

The technical feature, that the catalyst system of present claim 8 is obtainable by the process of claim 7 can not be accepted as being suitable to establish novelty.

Novelty can only be acknowledged to a product (obtainable by a process), if the product as such fulfills the requirements of novelty. The products which are the subject-matter of claim 8 are not characterised by technical features, which would render novelty to these products over the ones of D1 for example.

Therefore, present claim 8, defining a product by the process for its preparation is not allowable (PCT search and preliminary examination Guidelines A5.26(1)).

2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1, 2, 5 and 9 does not involve an inventive step in the sense of Article 33(3) PCT.

2.1. The document D1 is regarded as being the closest prior art to the subject-matter of claim 1. The subject-matter of claim 1 differs from the catalyst system of D1 in that the aluminate anion is of formula $\text{Al}(\text{OC}(\text{CF}_3)_3)_4^-$ rather than $\text{Al}(\text{OC}(\text{CH}_3)(\text{CF}_3)_2)_4^-$ or $\text{Al}(\text{OC}(\text{Ph})(\text{CF}_3)_2)_4^-$. There is no comparative example in the present application showing an effect of this difference.

Therefore, the objective technical problem to be solved by the present invention can only be regarded as being an alternative catalyst system.

The solution proposed in claim 1 of the present application cannot be considered as involving

an inventive step (Article 33(3) PCT) as the anion $\text{Al}(\text{OC}(\text{CF}_3)_3)_4^-$ was already known from the document D3 (cited in the description of the application).

The skilled person, faced with the technical problem would therefore modify the anion present in D1 according to the teachings of D3 in order to reach the catalyst system according to present claim 1.

2.2. The same reasoning applies, *mutatis mutandis*, to the subject-matter of the corresponding independent claim 9, which therefore is also considered not inventive.

2.3. Dependent claims 2 and 5 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step, see document D1 and the corresponding passages cited in the search report.

3. The combination of the features of dependent claims 3, 4, 6 and 7 is neither known from, nor rendered obvious by, the available prior art. The reasons are as follows: documents D1, D2 and D3 should be combined in order to arrive at the subject-matter of those claims which cannot be derived from the teachings of only two of those documents.